

REMARKS / ARGUMENTS

I. General Remarks and Disposition of the Claims.

Claims 1-90, 176-177, 182, and 185-216 remain pending in this application. Claims 91-175, which previously were withdrawn in response to a restriction requirement, have been cancelled herein. Claims 179-181, 183-184, 195, 206, and 214 also have been cancelled herein.

Claims 176, 178, 187, 197-201 and 212 are currently amended herein.

II. Remarks Regarding Objections to Claims 180, 181, 200, 201, and 212.

The Examiner has objected to claim 180 as having been amended to be identical in scope to claim 84, and has suggested that claim 180 be cancelled. (Office Action, at 2.) Applicants have cancelled claim 180 accordingly. Claims 198, 199 and 212 formerly depended from claim 180; Applicants have amended claims 198, 199 and 212 herein to depend from claim 84.

The Examiner has objected to claim 181 as having been amended to be identical in scope to claim 46, and has suggested that claim 181 be cancelled. (Office Action, at 2.) Applicants have cancelled claim 181 accordingly. Claims 200 and 201 formerly depended from claim 181; Applicants have amended claims 200 and 201 herein to depend from claim 46.

Applicants respectfully request the removal of the objection to claims 198, 199, 200, 201 and 212.

III. Remarks Regarding Objections to the Numbering of Certain Claims.

The Examiner has pointed out that Applicants' previously-filed Response to Office Action contained certain misnumbered claims, which the Examiner has renumbered as claims 211-216. (Office Action, at 2.) Applicants thank the Examiner, and have taken care to renumber the claims in this Response in accordance with the Examiner's comment.

IV. Rejection of Certain Claims Under 35 U.S.C. 102(b) as Anticipated By U.S. Patent No. 6,457,524 to Roddy ("Roddy").

Claims 176, 178, 187, 188, 190, and 197 stand rejected under 35 U.S.C. 102(b) as anticipated by *Roddy*. Regarding these rejections, the Examiner has stated:

US ‘524 [*Roddy*] discloses a method that includes, with respect to claim 176, a method of reducing the fluid loss from a cement composition comprising adding to the cement composition a fluid loss control additive comprising an organic compound and iron chloride. With respect to claim 178, the reference discloses a method of reducing the fluid loss from a cement composition, comprising adding to the cement composition a fluid loss control additive comprising an organic compound, an iron compound, and a zeolite. With respect to claim 187, the reference discloses a method of reducing the fluid loss from a cement composition, comprising adding to the cement composition a fluid loss control additive comprising an organic compound and an iron salt. With respect to the depending claims, the reference teaches the limitations as claimed, including iron chloride and a zeolite.

(Office Action, at 3.) Applicants respectfully disagree.

Regarding independent claim 176, the subject claim, as amended, recites the use of a fluid loss control additive comprising an organic compound and iron chloride, wherein the organic compound comprises copolymers or copolymer salts comprising 2-acrylamido-2-methylpropane sulfonic acid or acid salts thereof. Applicants respectfully submit that the Examiner has not shown *Roddy* to teach or suggest the use of such fluid loss control additive.

Regarding independent claim 178, the subject claim, as amended, recites the use of a fluid loss control additive comprising an organic compound, an iron compound, and a zeolite, wherein the iron compound comprises anhydrous ferric chloride. Applicants respectfully submit that the Examiner has not shown *Roddy* to teach or suggest the use of such fluid loss control additive.

Regarding independent claim 187, the subject claim, as amended, recites the use of a fluid loss control additive comprising an organic compound and an iron salt, wherein the organic compound comprises an acrylamide copolymer derivative. Applicants respectfully submit that the Examiner has not shown *Roddy* to teach or suggest the use of such fluid loss control additive.

To anticipate a claim under 35 U.S.C. §102(b), a reference must teach or suggest each and every limitation of the subject claim. MPEP § 2131. Because *Roddy* has not been shown to teach a fluid loss control additive comprising an organic compound and iron chloride,

wherein the organic compound comprises copolymers or copolymer salts comprising 2-acrylamido-2-methylpropane sulfonic acid or acid salts thereof, it has not been shown to teach or suggest every element of Applicants' independent claim 176. Because *Roddy* has not been shown to teach a fluid loss control additive comprising an organic compound, an iron compound, and a zeolite, wherein the iron compound comprises anhydrous ferric chloride, it has not been shown to teach or suggest every element of Applicants' independent claim 178. Because *Roddy* has not been shown to teach a fluid loss control additive comprising an organic compound and an iron salt, wherein the organic compound comprises an acrylamide copolymer derivative, it has not been shown to teach or suggest every element of Applicants' independent claim 187. Accordingly, Applicants respectfully request the removal of the rejection of claims 176 and 187, and claims dependent therefrom. Applicants further request the timely issuance of a Notice of Allowance for these claims.

IV. Rejection of Claims 176, 187 and 188 Under 35 U.S.C. 102(b) as Anticipated By U.S. Patent No. 5,968,255 to Mehta et al. ("Mehta").

Claims 176, 187 and 188 stand rejected under 35 U.S.C. § 102(b) as anticipated by *Mehta*. The Examiner states that *Mehta* discloses:

a method that includes, with respect to claim 176, a method of reducing the fluid loss from a cement composition comprising adding to the cement composition a fluid loss control additive comprising an organic compound and iron chloride. With respect to claim 187, the reference discloses a method of reducing the fluid loss from a cement composition, comprising adding to the cement composition a fluid loss control additive comprising an organic compound and an iron salt. With respect to the depending claim, the reference teaches the limitations as claimed, including iron chloride .

(Office Action, at 3-4.) Applicants respectfully disagree.

Regarding independent claim 176, the subject claim, as amended, recites the use of a fluid loss control additive comprising an organic compound and iron chloride, wherein the organic compound comprises copolymers or copolymer salts comprising 2-acrylamido-2-methylpropane sulfonic acid or acid salts thereof. Applicants respectfully submit that the Examiner has not shown *Mehta* to teach or suggest the use of such fluid loss control additive.

Regarding independent claim 187, the subject claim, as amended, recites the use of a fluid loss control additive comprising an organic compound and an iron salt, wherein the organic compound comprises an acrylamide copolymer derivative. Applicants respectfully submit that the Examiner has not shown *Mehta* to teach or suggest the use of such fluid loss control additive.

To anticipate a claim under 35 U.S.C. §102(b), a reference must teach or suggest each and every limitation of the subject claim. MPEP § 2131. Because *Mehta* has not been shown to teach a fluid loss control additive comprising an organic compound and iron chloride, wherein the organic compound comprises copolymers or copolymer salts comprising 2-acrylamido-2-methylpropane sulfonic acid or acid salts thereof, it has not been shown to teach or suggest every element of Applicants' independent claim 176. Because *Mehta* has not been shown to teach a fluid loss control additive comprising an organic compound and an iron salt, wherein the organic compound comprises an acrylamide copolymer derivative, it has not been shown to teach or suggest every element of Applicants' independent claim 187. Accordingly, Applicants respectfully request the removal of the rejection of claims 176 and 187, and claims dependent therefrom. Applicants further request the timely issuance of a Notice of Allowance for these claims.

V. Rejection of Certain Claims Under 35 U.S.C. 102(e) as Anticipated By U.S. Patent No. 6,939,536 to Chen et al (hereinafter, “*Chen*”).

Claims 176, 186-188, 195, 205, and 206 stand rejected under 35 U.S.C. § 102(e) as anticipated by *Chen*. The Examiner states that *Chen* discloses:

a method that includes, with respect to claim 176, a method of reducing the fluid loss from a cement composition comprising adding to the cement composition a fluid loss control additive comprising an organic compound and iron chloride. With respect to claim 186, the reference discloses a method of reducing the fluid loss from a cement composition, comprising adding to the cement composition a fluid loss control additive comprising an acrylamide copolymer derivative and iron chloride. With respect to claim 187, the reference discloses a method of reducing the fluid loss from a cement composition, comprising adding to the cement composition a fluid loss control additive comprising an organic compound and an iron salt. With respect to the depending claims, the reference teaches the limitations as claimed.

(Office Action, at 4.) Applicants respectfully disagree.

Chen is directed to “[a] composition for treating a keratin-based substrate that includes a cosmetically acceptable medium containing a water-soluble interjacent complex.” *Chen*, Abstract. “The cosmetically acceptable medium can be a hair or skin care product, such as a shampoo, conditioner, shower gel, bar soap, styling product, or rinse, or a skin care product, such as a cleanser, lotion, or cream.” *Chen*, “Field of the Invention,” 1:16-20. Applicants respectfully submit that the Examiner has not shown *Chen* to disclose a method of reducing the fluid loss from a cement composition.

To anticipate a claim under 35 U.S.C. §102(e), a reference must teach or suggest each and every limitation of the subject claim. MPEP § 2131. Because *Chen* has not been shown to teach or suggest a method of reducing the fluid loss from a cement composition , it has not been shown to teach or suggest every element of Applicants’ claims 176, 186-188, and 205. Accordingly, Applicants respectfully request the removal of the rejection of the subject claims. Applicants further request the timely issuance of a Notice of Allowance for these claims.

VI. Rejection of Certain Claims Under 35 U.S.C. 102(b) as Anticipated By U.S. Patent No. 5,181,568 to McKown (hereinafter, “*McKown*”).

Claims 176, 186-188, 195, 205, and 206 stand rejected under 35 U.S.C. § 102(b) as anticipated by *McKown*. The Examiner states that *McKown* discloses:

a method that includes, with respect to claim 176, a method of reducing the fluid loss from a cement composition comprising adding to the cement composition a fluid loss control additive comprising an organic compound and iron chloride. With respect to claim 186, the reference discloses a method of reducing the fluid loss from a cement composition, comprising adding to the cement composition a fluid loss control additive comprising an acrylamide copolymer derivative and iron chloride. With respect to claim 187, the reference discloses a method of reducing the fluid loss from a cement composition, comprising adding to the cement composition a fluid loss control additive comprising an organic compound and an iron salt. With respect to the depending claims, the reference teaches the limitations as claimed.

(Office Action, at 4-5.) Applicants respectfully disagree.

Regarding independent claim 176, the subject claim, as amended, recites the use of a fluid loss control additive comprising an organic compound and iron chloride, wherein the

organic compound comprises copolymers or copolymer salts comprising 2-acrylamido-2-methylpropane sulfonic acid or acid salts thereof. Applicants respectfully submit that the Examiner has not shown *McKown* to teach or suggest the use of such fluid loss control additive.

Moreover, Applicants note that *McKown* teaches the use of multivalent cations, including Fe^{2+} and Fe^{3+} as crosslinking agents to cause an aqueous polymer solution to crosslink into a rigid gel after placement in a subterranean formation. *McKown*, 4:25-32. Applicants further note that this aqueous polymer solution of *McKown* appears to be a compound that is placed into a subterranean formation separately from a subsequent cement composition:

The viscous aqueous polymer composition is first introduced into the oil zone After the introduction of the aqueous polymer composition, a hydrocarbon cement slurry . . . is introduced into the oil zone.

(*McKown*, 2:51-60.) Accordingly, the ferrous compounds used by *McKown* have not been shown to be present in a cement composition at all, much less present in a fluid loss control additive that is added to a cement composition.

Applicants respectfully submit that the Examiner has not shown that *McKown* teaches or suggests reducing the fluid loss from a cement composition comprising adding to the cement composition a fluid loss control additive comprising an organic compound and iron chloride, wherein the organic compound comprises copolymers or copolymer salts comprising 2-acrylamido-2-methylpropane sulfonic acid or acid salts thereof (with regard to amended claim 176), or comprising adding to the cement composition a fluid loss control additive comprising an acrylamide copolymer derivative and iron chloride (with regard to claim 186), or comprising adding to the cement composition a fluid loss control additive comprising an organic compound and an iron salt, wherein the organic compound comprises an acrylamide copolymer derivative (with regard to amended claim 187). For example, the Examiner has not shown that the addition of *McKown*'s ferrous crosslinking agents to an aqueous polymer solution would result in an iron salt or an iron chloride (*e.g.*, the Examiner has not shown that an iron salt or iron chloride would be the product of such reaction as may occur when *McKown*'s ferrous crosslinking agent is added to *McKown*'s aqueous polymer solution), or that *McKown* then includes such iron salt or iron chloride as part of a fluid loss control additive to a cement composition to thereby reduce the fluid loss therefrom. Absent such showing, Applicants respectfully submit that *McKown* has not been shown to teach or suggest anything more than the addition of ferrous crosslinking

agents to an aqueous polymer solution (that has not been shown to be present in a cement composition) to facilitate crosslinking of the aqueous polymer solution into a rigid gel.

To anticipate a claim under 35 U.S.C. §102(b), a reference must teach or suggest each and every limitation of the subject claim. MPEP § 2131. For the reasons stated above, Applicants respectfully submit that *McKown* has not been shown to teach or suggest every element of Applicants' claims 176, 186-188, and 205. Accordingly, Applicants respectfully request the removal of the rejection of the subject claims. Applicants further request the timely issuance of a Notice of Allowance for these claims.

VII. Rejection of Certain Claims Under 35 U.S.C. 102(b) as Anticipated By U.S. Patent No. 4,703,801 to Fry (hereinafter, "Fry").

Claims 39-44, 84-89, 180, 187, 192, and 195 stand rejected under 35 U.S.C. § 102(b) as anticipated by *Fry*. The Examiner states that *Fry* discloses:

with respect to claim 39, a method of cementing in a subterranean formation comprising the steps of: providing a cement composition comprising a hydraulic cement, water, and a fluid loss control additive, the fluid loss control additive comprising: an acrylamide copolymer derivative; an iron compound; and a dispersant, placing the cement composition into the subterranean formation; and permitting the cement composition to set therein. With respect to claims 84 and 180, the reference discloses a method of reducing the fluid loss from a cement composition, comprising the step of adding to the cement composition a fluid loss control additive comprising an acrylamide copolymer derivative; an iron compound; and a dispersant. With respect to claim 187, the reference discloses a method of reducing the fluid loss from a cement composition, comprising adding to the cement composition a fluid loss control additive comprising an organic compound and an iron salt. With respect to the depending claims, the reference teaches the limitations as claimed.

(Office Action, at 5.) Applicants respectfully disagree.

Applicants note that *Fry* teaches the use of an "initiator" for a polymeric backbone for certain lignite graft polymers, which initiator "comprised a ferrous salt with hydrogen peroxide." *Fry*, 5:28-29. Applicants respectfully submit that the Examiner has not shown that this disclosure from *Fry* constitutes a disclosure of a method of cementing in a subterranean formation comprising providing a cement composition comprising a hydraulic

cement, water, and a fluid loss control additive, the fluid loss control additive comprising: an acrylamide copolymer derivative; an iron compound; and a dispersant (with respect to claim 39), or a method of reducing the fluid loss from a cement composition, comprising the step of adding to the cement composition a fluid loss control additive comprising: an acrylamide copolymer derivative; an iron compound; and a dispersant (with respect to claim 84), or a method of reducing the fluid loss from a cement composition comprising adding to the cement composition a fluid loss control additive comprising an acrylamide copolymer derivative and iron chloride (with regard to claim 186), or comprising adding to the cement composition a fluid loss control additive comprising an organic compound and an iron salt, wherein the organic compound comprises an acrylamide copolymer derivative (with regard to amended claim 187). For example, the Examiner has not shown that the addition of *Fry*'s initiator that comprises a ferrous salt and hydrogen peroxide would result in an iron salt or an iron chloride (*e.g.*, the Examiner has not shown that an iron salt or iron chloride would be the product of such reaction as may occur when *Fry*'s initiator is used to form *Fry*'s polymeric backbone), or that *Fry* then includes such iron salt or iron chloride as part of a fluid loss control additive to a cement composition to thereby reduce the fluid loss therefrom. Absent such showing, Applicants respectfully submit that *Fry* has not been shown to teach or suggest anything more than the use of a ferrous salt with hydrogen peroxide to form a polymeric backbone for certain lignite graft polymers.

To anticipate a claim under 35 U.S.C. §102(b), a reference must teach or suggest each and every limitation of the subject claim. MPEP § 2131. For the reasons stated above, Applicants respectfully submit that *Fry* has not been shown to teach or suggest every element of Applicants' claims 39-44, 84-89, 187, and 192. Accordingly, Applicants respectfully request the removal of the rejection of the subject claims. Applicants further request the timely issuance of a Notice of Allowance for these claims.

VIII. Rejection of Claim 187 Under 35 U.S.C. 102(b) as Anticipated By U.S. Patent No. 3,956,140 to Nahm (hereinafter, "Nahm").

Claim 187 stands rejected under 35 U.S.C. § 102(b) as anticipated by *Nahm*. The Examiner states that *Nahm* discloses:

a method that includes a method of reducing the fluid loss from a cement composition, comprising adding to the cement composition

a fluid loss control additive comprising an organic compound and an iron salt. See particularly col. 2, lines 44-46, and claim 21.

(Office Action, at 5-6.) Applicants respectfully disagree.

Regarding independent claim 187, the subject claim, as amended, recites the use of a fluid loss control additive comprising an organic compound and an iron salt, wherein the organic compound comprises an acrylamide copolymer derivative. Applicants respectfully submit that the Examiner has not shown *Nahm* to teach or suggest the use of such fluid loss control additive.

To anticipate a claim under 35 U.S.C. §102(b), a reference must teach or suggest each and every limitation of the subject claim. MPEP § 2131. Because *Nahm* has not been shown to teach a fluid loss control additive comprising an organic compound and an iron salt, wherein the organic compound comprises an acrylamide copolymer derivative, it has not been shown to teach or suggest every element of Applicants' independent claim 187. Accordingly, Applicants respectfully request the removal of the rejection of claim 187. Applicants further request the timely issuance of a Notice of Allowance for this claim.